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For discussion at Public Workshop on 6/1/00 at 9am
Comments due 6/16/00

Contact Patty Nelson at pnelson@mail.maricopa.gov or at (602) 506-6709

REGULATION III - CONTROL OF AIR CONTAMINANTS

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**MARICOPA COUNTY
AIR POLLUTION CONTROL REGULATIONS**

REGULATION III - CONTROL OF AIR CONTAMINANTS

**RULE 320
ODORS AND GASEOUS AIR CONTAMINANTS**

SECTION 100 - GENERAL

101 PURPOSE: To limit the emissions of odors and other gaseous air contaminants into the atmosphere.

102 EXEMPTIONS: Subsection 303.3 of this rule shall not apply to metallurgical plants or other facilities where conversion to sulfuric acid is utilized as a means of controlling emissions to the atmosphere of sulfur dioxide or other compounds. Subsection 302.3 shall not apply to sulfuric acid production units.

SECTION 200 - DEFINITIONS: For the purpose of this rule, the following definitions shall apply:

~~**201 FOSSIL FUEL-FIRED STEAM GENERATOR** - A furnace or boiler used in the process of burning fossil fuel for the primary purpose of producing steam by heat transfer.~~

~~**202 HIGH SULFUR OIL** - Fuel oil containing 0.9 percent or more by weight of sulfur.~~

~~**203 LOW SULFUR OIL** - Fuel oil containing less than 0.9 percent by weight of sulfur.~~

2014 ODORS - Smells, aromas or stench commonly recognized as offensive, obnoxious or objectionable to a substantial part of a the community that is exposed to the substance.

~~**2025 REDUCTION** - Any heated process, including rendering, cooking, drying, dehydrating, digesting, evaporating and protein concentrating~~ **RENDERING** - The process of treating animal by-products (including blood) or vegetable by-products as raw materials by melting, heating or processing so as to convert the matter into fats, proteinaceous material and water.

~~**203 SULFURIC ACID PRODUCTION UNIT** - Any facility producing sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans, or acid sludge, but does not include facilities~~

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where conversion to sulfuric acid is utilized primarily as a means of preventing emissions to the atmosphere of sulfur dioxide or other sulfur compounds.

SECTION 300 - STANDARDS: ~~No person shall emit gaseous or odorous air contaminants from equipment, operations or premises under his control in such quantities or concentrations as to cause air pollution.~~

301 STANDARDS OF PERFORMANCE FOR ALL SOURCES: No person shall emit gaseous or odorous air contaminants from any source under his control in sufficient quantities, which either alone or in connection with other substances, by reason of their concentration and duration tend to do one or more of the following:

- a. Injure human, plant or animal life
- b. Damage property
- c. Obscure visibility
- d. Unreasonably interfere with the comfortable enjoyment of life or property of a substantial part of the community exposed to the substance.
- e. Degrade the quality of ambient air below the standards established by the Board of Supervisors.

~~ANIMAL AND VEGETABLE MATTER REDUCTION:~~ ~~No person shall operate or use any machine, equipment or other contrivance for the reduction of animal or vegetable matter, separately or in combination, unless all gases, vapors and gas-entrained effluents have been incinerated to destruction at a temperature of not less than 1,300 degrees fahrenheit or processed in a manner determined by the Control Officer to be equally or more effective for the control of air pollution.~~

302301.1 Odors and Gaseous Air Contaminants Released from Material Handling and Storage: MATERIAL CONTAINMENT REQUIRED: Materials, exclusive of water, including but not limited to, VOC (volatile organic compounds) containing compounds, solvents or other volatile compounds, paints, acids, alkalies, pesticides, fertilizer and manure must be contained unless in the immediate use of the operator shall be processed, stored, used and transported in such a manner and by such means that they will not unreasonably to minimize evaporation, leakage evaporate, leak, escape or be otherwise or discharged into the ambient air so as to cause or contribute to any of the conditions listed in Section 301. air pollution. Where means are available to reduce effectively the contribution to air pollution from evaporation, leakage or discharge, the installation and use of such control methods, devices or equipment shall be mandatory to reduce effectively the contribution to conditions listed in Section 301 from material escape, shall be mandatory, if available.

~~303 REASONABLE STACK HEIGHT REQUIRED:~~ 301.2 Odors and Gaseous Air Contaminants Discharged to Adjoining Property: Where a stack, vent or other outlet is at such a level that odors and gaseous air contaminants are discharged to adjoining property, the Control Officer may require the

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installation of either abatement equipment that will adequately reduce or eliminate the discharge of the odors or gases to adjoining property and/or the alteration of such stack, vent, or other outlet to a degree that will adequately ~~dilute disperse reduce or eliminate~~ their discharge ~~of and gaseous air contaminants~~ to adjoining property.

302 LIMITATIONS FOR ALL SOURCES: HYDROGEN SULFIDE: ~~No person shall emit hydrogen sulfide from any location in such a manner or amount that the concentration of such emissions into the ambient air at any occupied place beyond the premises on which the source is located exceeds 0.03 parts per million by volume for any averaging period of 30 minutes or more.~~

302.1 Hydrogen Sulfide: ~~No person shall emit hydrogen sulfide from any source in such a manner or amount that the concentration of such emissions into the ambient air, beyond the premises on which the source is located, exceeds 0.03 parts per million (0.03 ppm) for any average period of 30 minutes.~~

302.2 Carbon Monoxide: ~~No person shall cause, allow or permit discharge from any stationary source carbon monoxide emissions without the use of optimum combustion controls of waste gases generated by any process source. This shall be accomplished by optimizing the factors that affect combustion chemistry such as temperature, excess oxygen and residence time to minimize emissions of carbon monoxide.~~

302.3 Sulfur Oxides and Sulfuric Acid: ~~No person shall emit into the ambient air any sulfur oxide or sulfuric acid in such manner and amount as to result in ground level concentrations at any place beyond the premises on which the source is located exceeding those limits shown in the following table:~~

<u>Concentration of Sulfur Dioxide</u>	<u>Averaging Time</u>
<u>850 µg/m3</u>	<u>1 hour</u>
<u>250 µg/m3</u>	<u>24 hours</u>
<u>120 µg/m3</u>	<u>72 hours</u>
<u>Concentration of Sulfuric Acid And Sulfur Trioxide expressed as Sulfuric Acid</u>	
<u>15µg/m3 as SO4</u>	<u>24 hours</u>

303 ADDITIONAL STANDARDS OF PERFORMANCE FOR SPECIFIC SOURCES:

303.1—Animal And Vegetable Matter Rendering: ~~No person shall operate or use any machine, equipment or other contrivance for the rendering of~~

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animal or vegetable matter, separately or in combination, unless all gases, vapors and gas-entrained effluents have been:

- a. Burned to destruction or reduction at a temperature of not less than 1250 ° Fahrenheit and not less than 0.5 seconds residence time.

303.2 Operating Requirements - Asphalt Kettles and Asphalt Dip Tanks:

- a. No person shall discharge into the ambient air from any asphalt kettle or asphalt dip tank any air contaminant, other than combined water, in excess of 20% opacity.
- b. No person shall operate an asphalt kettle or asphalt dip tank unless the owner or operator controls air contaminant emissions by standard practices, including but not limited to:
 - 1. Maintenance of temperature below both the asphalt flash point and the maximum temperature recommended by the asphalt manufacturer through the use of automatic temperature controls.
 - 2. Operation of the asphalt kettle or asphalt dip tank with the lid closed except when charging.
 - 3. Pumping or drawing the asphalt through cocks without dipping.
 - 4. Firing of the asphalt kettle or asphalt dip tank with a clean burning fuel.
 - 5. Maintaining the asphalt kettle or asphalt dip tank in clean, properly adjusted and good operating condition.

303.3 Sulfuric Acid Production Units: Sulfuric acid production units shall be subject to the New Source Performance Standards (NSPS), 40 CFR 60, Subpart H, referenced in Rule 360 of these Rules and Regulations.

~~**LIMITATION—Sulfur Dioxide And Sulfuric Acid Mist From Sulfuric Acid Plants:** No person shall emit or discharge into the atmosphere more than 4.0 pounds of sulfur dioxide or 0.15 pounds of sulfuric acid mist per ton of sulfuric acid produced (calculated as 100 percent H₂SO₄) maximum two hour average, from facilities that produce sulfuric acid by the contact process by burning elemental sulfur, alkylation acid, hydrogen sulfide, organic sulfides and mercaptans or acid sludge.~~

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~~**Sulfur Dioxide From Electrical Power Plants:** facilities operated for the purpose of producing electric power with a resulting discharge of sulfur dioxide in the facility's effluent gases shall only use low sulfur oil.~~

~~**Steam Plants Using Low Sulfur Oil - After May 30, 1972:** Existing units which commenced construction or a major modification after May 30, 1972, shall not emit more than 0.8 pounds of sulfur dioxide, maximum three hour average, per million BTU heat input when low sulfur fuel is used.~~

~~**Steam Plants Using Low Sulfur Oil - Prior to May 30, 1972:** Existing steam power generating facilities which commenced construction or a major modification prior to May 30, 1972, shall not emit more than 1.0 pounds of sulfur dioxide, maximum three hour average, per million BTU heat input when low sulfur oil is fired.~~

~~**Steam Plants Using High Sulfur Oil:** All existing steam power generating facilities which are subject to the provisions of this rule shall not emit more than 2.2 pounds of sulfur dioxide, maximum three hour average, per million BTU heat input when high sulfur oil is fired.~~

~~**Permit Conditions - High Sulfur Oil:** Any permit issued for the operation of an existing source, or any renewal or modification of such a permit, shall include a condition prohibiting the use of high sulfur oil by the permittee. The applicant must demonstrate to the Control Officer that sufficient quantities of low sulfur oil are not available for use by the source and that it has adequate facilities and contingency plans to insure that the sulfur dioxide ambient air quality standards set forth in Rule 510 of these Regulations will not be violated. The terms of the permit may authorize the use of high sulfur oil under such conditions as are justified. In cases where the permittee is authorized to use high sulfur oil, it shall submit to the Bureau monthly reports detailing its efforts to obtain low sulfur oil. When the conditions justifying the use of high sulfur oil no longer exist, the permit shall be modified accordingly.~~

~~**307 LIMITATION - SULFUR FROM OTHER INDUSTRIES:** No person shall discharge into the atmosphere from any other industry not covered in other sections of this rule reduced sulfur, which includes sulfur equivalent from all sulfur emissions including but not limited to sulfur dioxide, sulfur trioxide and sulfuric acid, in excess of ten percent of the sulfur entering the process as feed.~~

~~**308 LIMITATION - Nitrogen Oxides from Electrical Power Plants:** This section applies to facilities operated for the purpose of producing electric power with a resulting discharge of nitrogen oxides.~~

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~~308.1 Steam Plants Using Gaseous Fossil Fuel:~~ Existing steam power generating facilities which commenced construction or a major modification after May 30, 1972, shall not emit more than 0.2 pounds of nitrogen oxides, maximum three hour average, calculated as nitrogen dioxide, per million BTU heat input when gaseous fossil fuel is fired.

~~308 _____ Steam Plants Using Liquid Fossil Fuel:~~ Existing steam power generating facilities which commenced construction or a major modification after May 30, 1972, shall not emit more than 0.3 pounds of nitrogen oxides, maximum three hour average, calculated as nitrogen dioxide, per million BTU heat input when liquid fossil fuel is fired.

~~309 OPERATING REQUIREMENTS - ASPHALT KETTLES AND DIP TANKS:~~

~~309.1~~ No person shall operate an asphalt kettle or dip tank unless the owner or operator controls air contaminant emissions by good modern practices, including but not limited to:

- ~~a.~~ Maintenance of temperature below both the asphalt flash point and the maximum temperature recommended by the asphalt manufacturer through the use of automatic temperature controls.
- ~~b.~~ Operation of the kettle or dip tank with the lid closed except when charging.
- ~~c.~~ Pumping or drawing the asphalt through cocks without dipping.
- ~~d.~~ Firing of the kettle or dip tank with a clean burning fuel.
- ~~e.~~ Maintaining the kettle or dip tank in clean, properly adjusted and good operating condition.

~~309.2~~ The visible emissions from the operation of an asphalt kettle or dip tank shall comply with the provisions of Rule 300

~~310 CARBON MONOXIDE:~~ The discharge of carbon monoxide emissions from any process source shall be effectively controlled by means of secondary combustion.

~~311 EXEMPTIONS:~~ Section 305 of this rule shall not apply to existing sources nor to metallurgical plants or other facilities where conversion to sulfuric acid is utilized as a means of controlling emissions to the atmosphere of sulfur dioxide or other compounds.

SECTION 400 – ADMINISTRATIVE REQUIREMENTS

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401 **COMPLIANCE SCHEDULE:** The provisions of this rule become effective on (date of adoption). An owner or operator shall be in full compliance with all applicable requirements of this rule no later than 180 days after the (date of adoption). If a demonstration must be made at the request of the Control Officer to prove compliance with the limitations in Subsection 302.2, then demonstration of compliance shall be no later than 1 year after the (date of adoption). The demonstration shall be made by conducting a worst case emissions model of the site.

SECTION 500 – MONITORING AND RECORDS

501 **RECORDKEEPING AND REPORTING:** Records shall be retained for five years and shall be made available to the Control Officer upon request. Any person subject to this rule shall comply with the following minimum requirements if the source of the air contaminants is from one of the following specific sources:

501.1 **Animal And Vegetable Matter Rendering:** Daily recordkeeping shall consist of the nature and amount of raw animal or vegetable material that is rendered, operating temperatures of the cooking device operation, the amount and type of fuel used, hours of operation and the number of start-ups and shut-downs per day.

501.2 **Asphalt Kettles And Dip Tanks:** Daily recordkeeping shall consist of the amount of asphalt processed and the hours of operation.

502 **COMPLIANCE DETERMINATION:** The test methods for those subparts of 40 CFR Part 60, Appendix A, July 1, 1999, as listed in Section 503 of this rule, are adopted by reference as indicated. The other test method listed herein is also adopted by reference having paired with it a specific date that identifies the particular version/revision of the method that is adopted by reference. This adoption by reference includes no future editions or amendments. Copies of test methods referenced in Section 504 are available at the Maricopa County Environmental Services Department, 1001 North Central Avenue, Phoenix, AZ, 85004-1942.

503 TEST METHODS:

503.1 **Sulfur Dioxide:** The emissions of sulfur dioxide shall be determined according to EPA Reference Method 8, 40 CFR, Part 60, Appendix A.

503.2 **Opacity:** The opacity determination shall be determined according to EPA Reference Method 9, 40 CFR, Part 60, Appendix A.

503.3 **Hydrogen Sulfide:** The emissions of hydrogen sulfide at ground levels shall be determined with a portable hydrogen sulfide monitor using Bay

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[Area Quality Management District Manual of Procedures, Volume VI,
Section 1 \(July 1994\).](#)